



SEQUENCE LISTING

<110> Bing-Ren HUANG et al.

<120> REGULATOR OF APOPTOSIS AND CELL PROLIFERATION

<130> 0641-0260P

<140> US 10/791,860

<141> 2004-03-04

<160> 20

<170> PatentIn version 3.2

<210> 1

<211> 197

<212> DNA

<213> Rattus norvegicus

<400> 1

gggacaaaac ttataacta caagcactta agcctcaaaa ttcttgactt tttctttaat 60

gactatagta taaccctcag ttgggtcacat gtctacacat tatttccagt tgataacaag 120

tagcgggtgtt ttccatatgt aattcagatc tgaacttaat ggcaataaat ggtttaaata 180

tttgcgaaaa aaaaaaa 197

<210> 2

<211> 167

<212> DNA

<213> Rattus norvegicus

<400> 2

cagggtcacgg aagccagtca tgccggagac accggcttct gggaagccgc ccagggtctca 60

ttcctccctg ctgtttggag gcagcatctc ctctttttat ggagggcccg tccttttttc 120

ttacaaattc ttcaataaag acacattctt gaggcgaaaa aaaaaaa 167

<210> 3

<211> 901

<212> DNA

<213> Rattus norvegicus

<400> 3

gctggccggg tcgaccctgg tgtcatccgt ttaggaagcg gcttcaccgc caacagcacg 60

gccatggctg gagctctggt gcgcaaagca gcggactatg tccggagcaa ggacttccgg 120

gactatctca tgagtacgca cttctggggc ccagttgccca actgggggtct cccattgct 180

gctatcaatg acatgaagaa atctccagag attatcagtg ggcggatgac tttcgccctc 240

| | |
|--|-----|
| tggttgctatt ctctgacatt catgagattt gcctacaagg tacaaccccg aaactggctt | 300 |
| ctgtttgcgt gccatgtgac aaacgaagtc gctcagctca ttcagggagg acgacttata | 360 |
| aactacgaga tgagtaagcg gccatctgcc tagcagtgcaggaggaccagct cttgaaaggg | 420 |
| acagtgtccc agccactgtt gcggccacag atcacgtcag catgaatagt cgtgctgagg | 480 |
| ggaaaacacg gaagactatc tttaatgacc atgccaacat tattgaatag ccaagaatcc | 540 |
| ccaaaccaac tctcggctgc cttatcaatg ctaaacttta tttgtcttca tcaggagtag | 600 |
| ttcaaaatat gcagctaatt taataatttt gaatgatggt atctatagca atctgtagta | 660 |
| atatgtatat tatctattgg gatttgtgta ataaaaaatc taagggaaca aaactttata | 720 |
| actacaagca ctttaagtcct caaaattcct gactttttct ttaatgacta tagtataacc | 780 |
| ctcagttggt cacatgtcta cacataatct ccagtgataa caagtagcgg tgttttccat | 840 |
| atgtaattca gatctgaact taatggcaat aaatgggttta aatatttgcg aaaaaaaaaa | 900 |
| a | 901 |

<210> 4
 <211> 109
 <212> PRT
 <213> Rattus norvegicus

<400> 4

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Gly | Ala | Leu | Val | Arg | Lys | Ala | Ala | Asp | Tyr | Val | Arg | Ser | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Phe | Arg | Asp | Tyr | Leu | Met | Ser | Thr | His | Phe | Trp | Gly | Pro | Val | Ala |
| | | 20 | | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Trp | Gly | Leu | Pro | Ile | Ala | Ala | Ile | Asn | Asp | Met | Lys | Lys | Ser | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ile | Ile | Ser | Gly | Arg | Met | Thr | Phe | Ala | Leu | Cys | Cys | Tyr | Ser | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Phe | Met | Arg | Phe | Ala | Tyr | Lys | Val | Gln | Pro | Arg | Asn | Trp | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Ala | Cys | His | Val | Thr | Asn | Glu | Val | Ala | Gln | Leu | Ile | Gln | Gly | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |

Arg Leu Ile Asn Tyr Glu Met Ser Lys Arg Pro Ser Ala
100 105

<210> 5
<211> 109
<212> PRT
<213> Mus musculus

<400> 5

Met Ala Gly Ala Leu Val Arg Lys Ala Ala Asp Tyr Val Arg Ser Lys
1 5 10 15

Asp Phe Arg Asp Tyr Leu Met Ser Thr His Phe Trp Gly Pro Val Ala
20 25 30

Asn Trp Gly Leu Pro Ile Ala Ala Ile Asn Asp Met Lys Lys Ser Pro
35 40 45

Glu Ile Ile Ser Gly Arg Met Thr Phe Ala Leu Cys Cys Tyr Ser Gln
50 55 60

Thr Phe Met Arg Phe Ala Tyr Lys Val Gln Pro Arg Asn Trp Leu Leu
65 70 75 80

Phe Ala Cys His Val Thr Asn Glu Val Ala Gln Leu Ile Gln Gly Gly
85 90 95

Arg Leu Ile Asn Tyr Glu Met Ser Lys Arg Pro Ser Ala
100 105

<210> 6
<211> 102
<212> PRT
<213> Homo sapiens

<400> 6

Met Ala Gly Ala Leu Val Arg Lys Ala Ala Asp Tyr Val Arg Ser Lys
1 5 10 15

Asp Phe Arg Asp Tyr Leu Met Ser Thr His Phe Trp Gly Pro Val Ala
20 25 30

Asn Trp Gly Leu Pro Ile Ala Ala Ile Asn Asp Met Lys Lys Ser Pro
35 40 45

Glu Ile Ile Ser Gly Arg Met Thr Phe Ala Leu Cys Cys Tyr Ser Leu
 50 55 60

Thr Phe Met Arg Phe Ala Tyr Lys Val Gln Pro Arg Asn Trp Leu Leu
 65 70 75 80

Phe Ala Cys His Ala Thr Asn Glu Val Ala Gln Leu Ile Gln Gly Gly
 85 90 95

Arg Leu Ile Lys His Glu
 100

<210> 7
 <211> 988
 <212> DNA
 <213> Homo sapiens

<400> 7
 gtcgtgaggc gggccttcgg gctggctcgc cgtcggtcgc cgggggggttg gcctgggtgt 60
 cattggctct ggggaagcggc agcagaggca gggaccactc ggggtctggt gtcggcacag 120
 ccatggcggg cgcgttggtg cggaaagcgg cggactatgt ccgaagcaag gatttccggg 180
 actacctcat gagtacgcac ttctggggcc cagtagccaa ctgggggtctt cccattgctg 240
 ccatcaatga tatgaaaaag tctccagaga ttatcagtgg gcggatgaca tttgccctct 300
 gttgctattc tttgacattc atgagatttg cctacaaggt acagcctcgg aactggcttc 360
 tgtttgcatg ccacgcaaca aatgaagtag cccagctcat ccagggaggg cggcttatca 420
 aacacgagat gactaaaacg gcatctgcat aacaatggga aaaggaagaa caaggtcttg 480
 aagggacagc attgccagct gctgctgagt cacagatttc attataaata gcctccctaa 540
 ggaaaataca ctgaatgcta tttttactaa ccattctatt tttatagaaa tagctgagag 600
 tttctaaacc aactctctgc tgcccttaca gtattaaata ttttacttct ttccataaag 660
 agtagctcaa aatatgcaat taatttaata atttctgatg atgttttatc tgcagtaata 720
 tgtatatcat ctattagaat ttacttaatg aaaaactgaa gagaacaaaa tttgtaacca 780
 ctagcactta agtactctg attcttaaca ttgtctttta tgaccacaag acaaccaaca 840
 gctggccacg tacttaaaat tttgtcccca ctgttttaaa atgttacctg tgtattttcca 900
 tgcagtgtat atattgagat gctgtaactt aatggcaata aatgatttaa atatttggtta 960
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 988

<210> 8
 <211> 873
 <212> DNA
 <213> Mus musculus

<400> 8
 ggtgtcatct gtctaggtag cggcttcacc gccaacggca cggccatggc tggagcgctg 60
 gtgcgcaaag cggcgggacta tgtccggagc aaggacttcc gggactatct catgagtacg 120
 cacttctggg gccagttgc caactggggt ctccccattg ctgctatcaa tgacatgaag 180
 aaatctccag agattatcag tgggcggatg actttcgccc tctgttgcta ttctctgaca 240
 ttcatgagat ttgcctacaa ggtacaacct cgaaactggc ttttgtttgc atgccatgta 300
 acaaacgaag tagctcagct cattcaggga ggacgactta tcaactacga gatgagtaag 360
 cggccatctg catagcggta caaggaccag ctcttgaaag agacagtgtc ccagccactg 420
 ctgcagccac agatcatgtc agcatgagta gtcgtgctga agggaaaaca cagaatgcta 480
 tcttaatgac catgccaaca ttattgaata gccgagagtc cctaaaccca ctctctgctg 540
 ccttatcaat gctaaacctt atttgtcttc atcaagagta gttcaaaata tgcaactaat 600
 ttaataattt tgaatgatgg ttttatctat agcaatctgt agtaatatgt atattatcta 660
 ttgggatttg tgtaataaaa aatctaaggg aacaaaatth tataactaca agcacttaag 720
 tactcaaaat tcttgacttt ttctttaatg acaatagtaa accctcagtt ggtcacatgt 780
 ctacacataa tttccagtga taacaagtat cgggtgtttc catatgtaac tcagatctgt 840
 aacttaatgg caataaatgg tttaaatatt tgc 873

<210> 9
 <211> 549
 <212> DNA
 <213> Mus musculus

<400> 9
 cggcacagcc atggcgggcg cggttggtgcg gaaagcggcg gactatgtcc gaagcaagga 60
 tttccgggac tacctcatga gtaacgactt ctggggccca gtagccaact ggggtcttcc 120
 cattgctgcc atcaatgata tgaaaaagtc tccagagatt atcagtgggc ggatgacatt 180
 tgccctctgt tgctattctt tgacattcat gagatttgcc tacaaggtagc agcctcggaa 240
 ctggcttctg tttgcatgcc acgcaacaaa tgaagtagcc cagctcatcc agggagggcg 300
 gcttatcaaa cacgagatga ctgtaactta atggcaataa atgatttaaa tatitgaaga 360
 gtagctcaaa atatgcaatt aatttaataa tttatctgca gtaatatgta tatcatctat 420

tagaatttac ttaatgaaaa actgaagaga acaaaatttg taaccactag cacttaagta 480
 ctcttgattc ttaacattgt ctttaatgac aatagctgag agtttctaaa ccaactctct 540
 gctgcctta 549

<210> 10
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> 5' random arbitrary primer

<400> 10
 caagcgaggt 10

<210> 11
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> 5' random arbitrary primer

<400> 11
 cagtgaagctg 10

<210> 12
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> 5' random arbitrary primer

<400> 12
 gtcacggaag 10

<210> 13
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer AP1

<400> 13
 ccacctaatacgaactcact atagggc 27

<210> 14
 <211> 24

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer corresponding to SEQ ID NO: 1

 <400> 14
 agccgagagt tggtttgggg attc 24

 <210> 15
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer I (ARBP cDNA 5' primer)

 <400> 15
 gggatccaac agcacggcca tg 22

 <210> 16
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> primer II (ARBP cDNA 3' primer)

 <400> 16
 ggaattcatt gataaggcag ccgaga 26

 <210> 17
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> GAPDH sense primer

 <400> 17
 tgctggtgct gagtatgtcg 20

 <210> 18
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> GAPDH anti-sense primer

 <400> 18
 gcatgtcaga tccacaacgg 20

<210> 19
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> polyclonal antibody against a C-terminal peptide sequence of ARBP
 <400> 19

Gly Arg Leu Ile Asn Tyr Glu Met Ser Lys Arg Pro Ser Ala
 1 5 10

<210> 20
 <211> 550
 <212> DNA
 <213> Homo sapiens

<400> 20
 cggcacggcc atggctggag cgctggtgcg caaagcggcg gactatgtcc ggagcaagga 60
 cttccgggac tatctcatga gtacgcactt ctggggccca gttgccaact ggggtctccc 120
 cattgctgct atcaatgaca tgaagaaatc tccagagatt atcagtgggc ggatgacttt 180
 cgccctctgt tgctattctc tgacattcat gagatttgcc tacaaggtag aacctcgaaa 240
 ctggcttttg tttgcatgcc atgtaacaaa cgaagtagct cagctcattc agggaggacg 300
 acttatcaac tacgagatga ctgtaactta atggcaataa atggtttaaa tatttgaaga 360
 gtagttcaaa atatgcaact aatttaataa tttatctgta gtaatatgta tattatctat 420
 tgggatttgt gtaataaaaa atctaaggga acaaaatttt ataactacaa gcacttaagt 480
 actcaaaatt cttgactttt tctttaatga caatagccga gagtccctaa acccactctc 540
 tgctgcctta 550